Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

(3) Helminthology treated in this way, may also aid paleontological research, since the relations between parasites and hosts, and their migrations and geological age, permit conclusions to be drawn as to the age of the single larger groups (of the parasites) and even of their genera and species. A. E. O.

Two papers on the Nautilus.[1] — These two works which appeared nearly simultaneously form the most important contributions to our knowledge of the tetrabranch cephalopods which have appeared for years. Dr. Griffin had for his material numerous specimens collected by the Menage expedition of the Minnesota Academy of Sciences, while Dr. Willey collected his among the islands of the Eastern Archipelago where he went in the hopes of obtaining the embryology of this most interesting animal.

Neither of the papers — which extend over 95 and 91 pages and are illustrated by several text figures and 17 and 9 plates respectively — can be summarized here. The two, to a great extent, supplement each other. Dr. Griffin has endeavored to give a connected account of the anatomy, utilizing not only his own dissections but the accounts of his predecessors and hence gives a wealth of detail. Willey on the other hand describes rather what he himself has investigated and his comparisons are those of the broader morphological treatment. A single example will illustrate the different points of view. In treating of the digital tentacles Willey gives comparatively little about the anatomical structure but tries to work out a numerical nomenclature of these parts, in which he comes to results widely at variance with the previous studies of Vayssière. Griffin, on the other hand describes the anatomy in great detail, but says nothing regarding the arrangement, although he knows of Vayssière's work. He gives however a plan of their position which differs in some respect from that of Willey. Willey further enters with the question whether these tentacles are to be compared to the arms of the dibranch cephalopods or to the acetabula as has been suggested, inclining to the former view.

The sections relating to the foot in Dr. Willey's paper are of interest. Accepting Grenacher division of the molluscan foot into a median protopodium and lateral epipodia and discussing change of function and its relations to change of organs and to topography he argues for the conclusion that the siphon represents the protopodium of the gasteropod and the tentacles the epipodia. He also claims that the post-anal papillæ are osphradial in nature and are therefore an additional evidence for metamerism in these forms, while on the other hand he fails to find any metamerism in the cœlom.

---

[1] Griffin, L. E. The Anatomy of Nautilus pompilius, *Memoirs National Acad. Science*, viii, 1900 (1902). — Willey's Contribution to the Natural History of the Pearly Nautilus, in his *Zoölogical Researches*, part vi, August, 1902.

Besides dealing with Nautilus Willey presents numerous other facts in this number of his "Results" among them many details as to the anthropology of the regions visited, and notes on tunicata, Amphioxus and Enteropneusta. K.

BOTANY.

Recent Literature on Seedlings.— In *Torreya* (Vol. II, pp. 113–117, August, 1902) Lloyd discusses "Vivipary in Podocarpus." During the last winter a specimen of *Podocarpus makayi* bore an excellent crop of fruit which germinated almost without exception and on the parent plant. The hypocotyl, he finds, is, when developed, of that club shape characteristic of certain other viviparous plants, as the mangroves, and is rich in food material, especially starch, which seems to be derived not only from the endosperm, but from its own photosynthetic activity as well as may be inferred from its greater weight, green color, and the presence of stomata. In most cases the primary root does not develop, but its place is taken by one or usually two lateral roots formed near the end of the hypocotl. He calls attention to vivipary in *Melocanna bambusoides* and its possible existence in other grasses, in *Tillandsia albisiana* and in *Quercus fusiformis* as well as interesting similarities in other oaks, and concludes that vivipary is by no means the unusual condition it is supposed to be. F. W. Rane ("How to grow a Forest from Seed." *Bull. N. H. Ag. Exp. Sta.* 95, November, 1902), figures a few tree seedlings though the bulk of the paper is naturally of an economic nature. In *Proc. Cambridge Philosophical Soc.*, Vol. XI, pp. 445–457, Pl. 5, 1902, Gardiner and Hill consider the histology of the Endosperm during the germination of *Tamus communis* and *Galium Tricorne.* Chaûveaud in *Bull. Mus. d Hist. Nat.*, 1902, No. 1, pp. 52–59, discusses the arrangement of the vascular system in the cotyledon of the onion, *Allium cepa.*